

REMARKS

Claims 1-3 and 27 are pending in the application. Non-elected Claims 4-26 have been cancelled without prejudice to re-presenting those claims in a continuing application.

The Examiner is thanked for the courtesy shown during the telephone discussion on January 11, 2005. An amendment to the specification sufficient to overcome the objection based on the sequence compliance rules was discussed. The Examiner's helpful suggestion has been adopted in the above amendment. Specifically, the SEQ ID NOs corresponding to TREK2, TREK1 and TRAAK have been added to paragraph [0019] of the specification.

Claim Objections

The objection to Claim 3 based on the term "SEQ ID No. 2" is acknowledged. The above amendment corrects the sequence identifier to read "SEQ ID NO: 2". Therefore, it is respectfully requested that the objection to Claim 3 be reconsidered and withdrawn. Claim 3 has also been amended to include the transition phrase "consisting essentially of" so that the claim properly further defines the subject matter of Claim 1.

Rejections under 35 U.S.C. § 112, First Paragraph

Claims 1, 2 and 27 have been rejected under 35 U.S.C. §112, first paragraph. In this respect, the Office Action indicates that the specification is not enabling for the full scope of the claims, and that the written description is not adequate to support the full breadth of the claims.

The Examiner's acknowledgement that the subject matter of claim 3 is fully enabled by the specification (Office Action, § 4, paragraph 1, lines 2-5) is noted with appreciation. Further, the Examiner's acknowledgement that the subject matter of Claim 3 meets the written description requirement (Office Action, page 7, first paragraph, lines 1-3) is also noted with appreciation.

Claim 1 has been amended to incorporate the subject matter of Claim 3. Specifically, Claim 1 now recites that the channel comprises the amino acid sequence of SEQ ID NO: 2. Support for the amendment can be found in the specification, for example, in paragraph 0008, as well as original claim 3. Because the subject matter of amended Claim 1 is fully enabled and supported by an adequate and detailed written description, it is respectfully requested that the rejections under 35 U.S.C. §112 be reconsidered and withdrawn.

Claim Rejections under 35 U.S.C. § 102

Claims 1 and 2 are rejected under 35 U.S.C. §102(b) as being allegedly anticipated by Lesage. As noted above, Claim 1 has been amended to recite that the channel comprises the amino acid sequence of SEQ ID NO: 2. Lesage discloses a two-pore domain K⁺ channel called TWIK-1, which is a protein having 336 amino acid residues. (*See*, Fig. 1B, cDNA sequence and deduced amino acid sequence of its coding region.) Lesage does not describe or suggest a K⁺ channel having the amino acid sequence of SEQ ID NO: 2, which includes 538 amino acid residues. Because there is no description or suggestion in Lesage of the channel as claimed, it is respectfully submitted that Claim 1, as amended, is not anticipated nor obvious over Lesage. Therefore, it is requested that the rejection based on 35 U.S.C. §102 be reconsidered and withdrawn.

Conclusion

For the foregoing reasons, it is respectfully requested that all of the rejections and objections set forth in the Official Action be reconsidered and withdrawn. It is believed that the application is now in condition for allowance, which action is solicited. If the Examiner believes that minor amendments or other action will advance the case, the Examiner is invited to telephone the Applicants' undersigned attorney.

Respectfully submitted,

A handwritten signature in black ink, reading "Paul Carango". The signature is written in a cursive style with a horizontal line underneath the name.

Paul Carango
Reg. No. 42,386
Attorney for Applicants

PC:SAN:vbm
(215) 656-3320